

# EUROPEAN PATENT OFFICE

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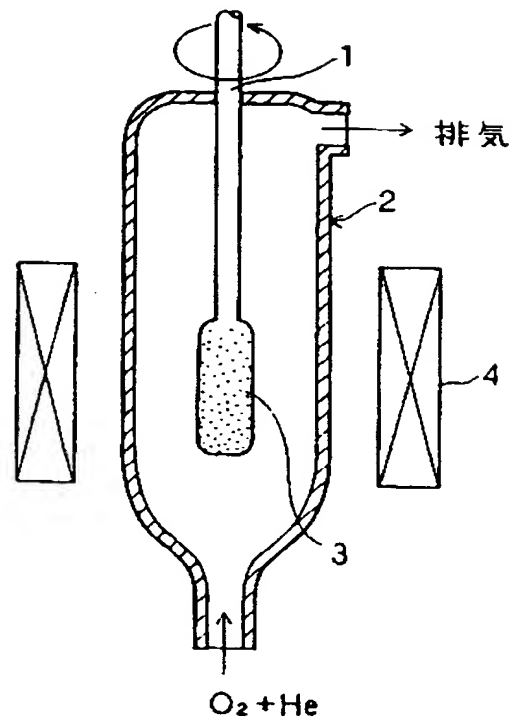
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TITLE : PRODUCTION OF OPTICAL FIBER  
BASE MATERIAL



**ABSTRACT :** PURPOSE: To eliminate a fault due to an oxygen hole and to produce an optical fiber base material less in transmission loss by heating the porous bodies of quartz glass in a gaseous mixture flow of oxygen and inert gas wherein oxygen partial pressure is specified and making these transparent.

CONSTITUTION: The fine particulate porous bodies 3 of quartz glass are supported in the bottom end of a quartz supporting rod 1 penetrating the top end of a quartz glass reactor core pipe 2. Oxygen of  $\geq 30\%$  oxygen partial pressure and inert gas such as He are mixed and flowed into the reactor core pipe 2 and heated by a carbon heater 4 or the like, and thereby the fine particulate porous bodies 3 of quartz glass are transparently vitrified. In the optical fiber base material obtained by this method, a fault due to an oxygen hole can be decreased in case of the wire drawing, and the optical fiber which is less in transmission loss in an ultraviolet region and excellent in radiation resistant characteristics can be obtained.

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